8565

Diag. Cht. Nos. 1233-2 & 1234-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. GI-05-2-60 Office No. H-8565

- LOCALITY

State NORTH CAROLINA

General locality EAST COAST NORTH CAROLINA

Locality BEAUFORT INLET

194 60

CHIEF OF PARTY

Kenneth A. MacDonald, LT.

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DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

REGISTER No. H-8565

Field No. GI-05-2-60

State	North Carolina	
General locality	Atlantic Ocean	
Locality	Beaufort Inlet	
Scale	1:5,000	Date of survey Nov. and Dec. 1960
Instructions dated	6 September, 1960;	222/MEK, S-2-GI
Vessel Launcl	h CS-1176 and Catam	aran Skiff.
Chief of party K	enneth A. MacDonald	
Surveyed byD	oyle D. Harper	
Soundings taken k	oy fathometer, graphic recor	der , hand lead, wi re
Fathograms scale	d by Personnel - Sh	ip GILBERT
Fathograms check	ted by Personnel - Sh	ip GILBERT
Protracted by	Richard D. Lynn	
Soundings pencile	ed by Richard D. Ly	nn
Soundings in f	athoms feet at MLV	V XXXXX
REMARKS:		
	·	

NOTES TO ACCOMPANY

DESCRIPTIVE REPORT

HYDROGRAPHIC SURVEY H-8565

FIELD NO. GI-05-2-60

BEAUFORT INLET, N. CAROLINA

1960 FIELD SEASON

Scale 1:5.000

USC&GS SHIP GILBERT LT. Kenneth A. MacDonald, Comdg.

Surveyed by: Doyle D. Harper

A. PROJECT:

Project 10000-820, vicinity of Beaufort Inlet, N. C. Instructions 222/MEK, S-2-GI, dated 6 September, 1960.

B. SURVEY LIMITS AND DATES:

The survey covers the Beaufort Inlet area, between longitudes $76^{\circ}39'00"$ and $76^{\circ}41'00"$, and from latitude $34^{\circ}39'30"$ north to the low water line of Bird Shoal, at approximate latitude $34^{\circ}42'00"$.

The survey covers a portion of the area covered by survey H-7963, scale 1:12,500, 1953, and a junction was made with contemporary survey H-8564 on the west.

Field work began 9 November 1960, and ended 8 December 1960. Field work was slowed by prevailing southerly winds which caused breakers on the shoal areas.

C. VESSEL AND EQUIPMENT:

Most of the hydrography was done with launch CS-1176 operating from the Ship GILBERT in Beaufort. At sounding speed of $4\frac{1}{2}$ knots, the launch has a turning radius of about 30 meters. An 808 type fathometer was used throughout. #162 SPX was used for all sounding except for a portion of "1" day when #159 SPX was used. Fathometers were calibrated for 820 fathoms/second.

For a portion of the work north of Shackleford Point a catamaran skiff arrangement was used, consisting of two 16 ft. alunimum skiffs secured together. A sounding pole was used for the skiff work.

C. <u>VESSELS AND EQUIPMENT</u> (CONTINUED)

A leadline was used for drift sounding on shoals, and for verticle casts at bar checks. The leadline was measured and the results recorded in the sounding record.

Some areas were surveyed by walking the water line at low tide and taking sextant fixes.

D. TIDE AND CURRENT STATIONS:

The standard gage at Morehead City was leveled, and inspected for satisfactory operation before the survey began.

A portable gage, already installed by the U. S. Engineers on Triple ESS fishing pier, Atlantic Beach was maintained by ship personnel during the survey. All tide reducers are from this gage, with no time or height corrections applied.

All bench marks in the vicinity of the Atlantic Beach gage, had been destroyed, necessitating the setting of new marks, and establishing a datum from only 10 days observations. See letter from Acting Chief, Marine Data Division, 2221-461-982 GI, 28 October 1960.

Six current stations were observed, using Roberts Radio Meters, in accordance with instructions previously mentioned. Considerable difficulty was experienced at Station 1 and 2 in the outside channel due to extended periods of very rough water which made it impossible to go alongside the buoys to repair equipment. In addition, current directions obtained were poor, several of the meters had compass contacts installed 180° out of phase, these directions were reversed in the record books and noted with an (R). After completion of the stations, these meters were repaired by setting the meter in a due N direction, and adjusting the contacts.

At the request of the Washington Office, stations 1 and 2 were re-observed with much better results.

In most cases, the buoys in the Ship Channel had to be set to one side or the other, so as not to interfer with dredging operations of the dredge GERIG. For the first observations at Station #1 the buoy was set very near the edge of the channel, and the bottom came up very steep just outside the buoy. From the condition of the bottom meter upon retrieving the gear, it is suspected that the meter was dragging along the bank on the reversal of the current. This would explain the poor results obtained on the meter.

Free floats were released at four locations during peak currents as prescribed in the instructions. These floats consisted of a cross, (+), made of two pieces of l"x4" lumber, 3 ft. in length, with a l foot long 2"x2" piece nailed in an upright position, providing very little wind resistance. The floats were numbered to avoid confusion in identification.

D. TIDE & CURRENT STATIONS (CONTINUED):

The floats were released approximately 100 yards apart at right angles to the current. Three point sextant fixes were taken from a skiff at each float as fast as the skiff could run between the floats. The paths of the floats were plotted on a copy of Chart 423 and forwarded to the Washington Office.

E. SMOOTH SHEET:

The smooth sheet projection was made in the Washington Office by ruling machine. Shoreline and signals were transferred from topographic sheets T-7138 and T-7139, and verified in accordance with Section 757, Hydrographic Manual.

The smooth sheet was plotted as field work progressed.

F. CONTROL STATIONS: See NPO Signal List

Control Stations used on the survey are as follows:

Triangulation Stations:

*BACK RANGE LT, RANGE "B" (USE), supplied by USE,

Wilmington, N. C.

GAR, F.L.P. 1921, r. C.R.R. 1952

FORT MACON COAST GUARD CUPOLA, H.O. 1933, r. R.J.S. 1949

FORT MACON C. G. STATION 191, CUPOLA, C.R.R. 1952

MOREHEAD CITY RADIO STATION WMBL, TOWER, R.J.S. 1948

BEAUFORT COURTHOUSE CUPOLA, J.B.B. 1913, r. C.R.R. 1952

BEAUFORT MUNICIPAL WATER TANK, F.L.P. 1927, r. R.J.S. 1946

TOWN MARSH 2, F.L.P. 1927, r. R.J.S. 1947

JETTY (USE SHACKLEFORD), H.O. 1933, r. CR.R. 1952

G. SHORELINE AND TOPOGRAPHY:

Shoreline and topography are from T-7138 and T-7139, no shoreline revisions were made by the Hydrographic party.

The low water line was not completely delineated in all places because of small tide range and exposed beaches.

*The position of BACK RANGE LT, RANGE "B" (USE), was verified by planetable on Sheet T-7139

TOPOGRAPHIC STATIONS:

CAR DIM ELM END FRO

BOB

All topo stations are from T+7139, except END, which is a three point theodolite fix.

FUN GAL

G. SHORELINE AND TOPOGRAPHY (CONTINUED):

A new fixed aid to navigation, established during the survey, MOREHEAD CITY CHANNEL RANGE, FRONT LT., was located by sextant fixes and plotted on the smooth sheet. BEAUFORT INLET CHANNEL RANGE, REAR LT., was also located and plotted in the same manner.

Fixes taken to locate current buoys indicated the position of, Radio Tower (WBMA), a charted landmark to be in error. Sextant cuts from other stations were obtained to the tower and plotted on the smooth sheet. The new position is reported on Form 567.

Sextant fixes were taken from inside the cupola, at FORT MACON C. G. STATION 191, CUPOLA, 1952, to verify the charted position, in accordance with Deputy Director's letter S-1-GI, 211/mmy, 3 November 1960. The charted position was verified. A chart of objects for use of United States Coast Guard was prepared and submitted.

H. SOUNDINGS:

Depths were measured by 808 type fathometers, sounding pole, and standard lead line.

Velocity corrections were computed from bar checks taken daily, weather permitting. These corrections had to be computed from individual bar checks in order to keep the records up to date for the smooth plotter. An abstract of velocity corrections is attached to this report.

The initial setting was maintained at 1 foot throughout. R.P.M. checks were made daily on the fathometer, and reed tachometers were checked frequently to insure operation at the proper speed. All fathometer sounding was done on the "A" scale.

The U. S. Engineers suction dredge GERIG was dredging in the main Ship Channel during the survey. This accounts for some erroneous depth curves in the NW corner of the sheet. After the dredge began work, no more attempt was made to develop the channel except for the regular spacing of lines.

Predicted tides varied greatly from actual tides, this caused some poor crossings on the boat sheet.

I. CONTROL OF HYDROGRAPHY:

All hydrography was controlled by three point sextant fixes, except in some instances where fixes were referred to topographic objects along the beach. The location of the submarine telephone cable from Fort Macon Coast Guard Station to Shackleford Point was obtained from a work plan at the Coast Guard Station.

J. ADEQUACY OF SURVEY:

The survey is considered complete and adequate to supersede prior surveys for charting purposes. Adequate junction is made with contemporary survey H-8564.

K. CROSSLINES:

About 8% of the sounding lines are crosslines, good crossings were obtained.

L. & M. COMPARISON WITH PRIOR SURVEYS AND CHART:

See smooth plotters notes.

N. DANGERS AND SHOALS:

No new dangers or shoals were found. All least depths on the shoal area just west of Beaufort Channel were found to be greater than charted. The new survey is considered adequate in this respect to supersede prior surveys, and the charted soundings need not be retained.

This being a very changeable area, the entire bar on both sides of the channel has shifted and changed shape. It is assumed that an exhaustive discussion of each change here would only be confusing. See comparison with chart and prior surveys.

O. COAST PILOT INFORMATION:

No changes in or additions to the 6th (1959) edition of the Coast Pilot, are necessary.

P. AIDS TO NAVIGATION:

Fixed aids to navigation have been reported on Form 567.

Floating aids are listed separately.

Shortly after the survey was completed, the Coast Guard re-established buoys in the survey area. See Notice to Mariners, No. 60, 12-22-60, Fifth Coast Guard District, attached to boat sheet.

Azimuths of ranges were determined as follows:
Beaufort Inlet Channel Range 009°
Morehead City Channel Range $127\frac{1}{2}^{0}$ These azimuths were scaled from the plotted positions of the front and rear lights on each range, from the smooth sheet.

The termini of the submarine telephone cable from Fort Macon Coast Guard Station to Shackleford Point are:

P. AIDS TO NAVIGATION: (CONTINUED)

Lat. $34^{\circ}41'55"$, Long. $76^{\circ}40'43"$, and Lat. $34^{\circ}41'33"$, Long. $76^{\circ}39'43"$, as determined from a work chart at the Coast Guard Station.

Q. LANDMARKS FOR CHARTS:

Landmarks for charts have been reported on Form 567. Landmarks newly located and recommended for charting are:

RADIO TOWER (WBMA)
BEAUFORT INLET CHANNEL RANGE, FRONT LT.
MOREHEAD CITY CHANNEL RANGE, FRONT LT.
BEAUFORT INLET CHANNEL RANGE, REAR LT.

Landmarks to be deleted from the chart were:

CUPOLA (on Atlantic Beach), destroyed. RADIO TOWER (WBMA), position in error. FLAGPOLE, (in Beaufort), destroyed.

Z. TABULATION OF APPLICABLE DATA:

Sounding Volumes (8 volumes) 1.

"a" through "n" days Fathograms 2.

Boat Sheet H-8565 3. Smooth Sheet H-8565 4.

Level Records, Tide Station reports, and Description of Bench Marks, Morehead City and Atlantic Beach gages

Free Float Records 6.

Marigrams, Atlantic Beach gages 7. 14 Sept. to 6 Dec. 1960.

8. Current Survey Data

Tide Reducers 9.

Velocity Correction Report 10.

11.

Landmarks for Charts, Form 567
Topographic Sheets T-7138 and T-7139 12.

Date Forwarded

To be forwarded

n 11

Forwarded 13 Oct. and 23 Dec. 1960

Forwarded 15 Oct.

1960.

19 Oct. and 19 Dec. 1960.

27, 28 Oct. 1960

and 22, 23 Dec. 1960

To be forwarded

17 January 1961

To be forwarded

Submitted by:

Doyle D. Harper LTJG, C&GS

Approved and Forwarded:

Kenneth A. MacDonald LT, C&GS, Comdg. Ship GILBERT

NORFOLK PROCESSING OFFICE LIST OF SIGNALS To Accompany H-8565

TRIANGULATION STATIONS

BEA BEAUFORT COURT HOUSE CUPOLA, 1913-27

CUP FORT MACON COAST GUARD STATION NO. 191, CUPOLA, 1952

GAR GAR, 1927

JET JETTY (USE SHACKLEFORD), 1933

MAR TOWN MARSH 2, 1927-34

RAN SHACKLEFORD REAR RANGE BEACON, USE

TAN BEAUFORT MUNICIPAL WATERTANK, 1927-43

WMBL MOREHEAD CITY WMBL RADIO TOWER, 1948

TOPOGRAPHIC STATIONS SOURCE T-7139

Aha Bob Car Dim Elm End Fro Fun Gal Sam

HYDROGRAPHIC STATIONS SOURCE H-8564

Nub Ora

NORFOLK PROCESSING OFFICE FLOATING AIDS TO NAVIGATION

н-8565

BUOY	LATITUDE	LONGITUDE	DEPTH	POS.	DATE
BEAUFORT INLET CHAN.					
Lighted Buoy 3 Lighted Buoy 4 Buoy 5 Buoy 6 Lighted Buoy 7 Lighted Buoy 8 Lighted Buoy 11 Lighted Buoy 12	34-39.35 39.33 40.08 40.11 40.43 40.44 41.17 41.23	40.21 40.22 40.13 40.16 40.07 40.12	16 ' 26'	44n 45n 48n 47n 51n 53n 55n 69n	12/6/60
MOREHEAD CITY CHAN.					
Buoy 14 Lighted Buoy 16 Lighted Buoy 15 Buoy 17	41.49 41.47 41.52	40.06 40.16 40.23 40.31	28' 35' 18' 20'	57n 58n 59n 60n	ff ff ff
BEAUFORT HARBOR CHAN.					
Entr. L'td. Buoy 1	42.15	4 9 • 42	19'	65n	11

STATISTICS
For Hydrographic Survey H-8565, 1960

Launch 1176

Date	Vol.	Day Letter	No. of Positions	Statute Miles Sdg.
9 November	1	a	78	6. 9
14 November	1	ъ	159	15.1
14 November	2	ъ	69	5.1
15 November	2	c	123	11.3
16 November	2	d	65	5.5
16 November	3	d	20	1.3
18 November	3	e	197	18.3
21 November	4	f	271	25.6
21 November	5	${\bf f}$	16	2.5
22 November	5	g	184	16.6
25 November	5	h	53	6.0
25 November	6	h	39	4.6
29 November	6	j	30	2.5
1 December	6	k	62	4.0
2 December	6	l	108	6.3
3 December	7	m	203	18.4
6 December	7	n Totals	<u>85</u> 1762	$\frac{1.7}{151.7}$

STATISTICS
For Hydrographic Survey H-8565, 1960

Catamaran Skiff

Date	Vol.	Day Letter	No. of Positions	Statute Miles Sdg.
17 November	$l(S_{kiff})$	a	94	3.4
29 November	6(Launch)	ъ	82	2.3
30 November	l(Skiff)	c Totals	<u>61</u> 237	<u>2.4</u> 8.1

TIDE NOTE

HYDROGRAPHIC SURVEY H-8565, 1960

All tide reducers were computed from marigrams from a portable tide gage maintained by Triple ESS fishing pier at Atlantic Beach, Latitude 34° 41' 40", Longitude 76° 42' 41". No time or height corrections were applied.

Mean low water corresponds to 1.9 feet on the tide staff. This datum was computed from a short period of observations. See letter from Acting Chief, Marine Data Division, 2221-461 982 gi, 28 October 1960.

ABSTRACT OF VELOCITY CORRECTIONS

HYDROGRAPHIC SURVEY H-8565, 1960 BEAUFORT INLET, NORTH CAROLINA

Correction	a & b days	c & d days	e day	f day	g, h days	j thru n days
+0.2	0'-40'					
0.0		0'- 12'	0'- 20'		0'- 5'	0'- 3'
-0.2		12'- 20'	201 -	0'- 15'	5'- 15'	31- 61
-0.4		20'- 30'		15'- 25'	15'- 40'	61- 201
- 0.6		30'- 40'		25'- 40'		201- 261
-0.8		40' -				26'- 37'
-1.0						37' -

Figures in day columns are depths in feet.
Corrections are in feet.

NORFOLK PROCESSING OFFICE ADDENDUM To Accompany

HYDROGRAPHIC SURVEY H-8565 (G1-05-2-60)

GENERAL

The smooth plot of this survey was started by Mr. R.D. Lynn while on detached duty with Ship Gilbert. When the field work was completed he returned to this Office and finished the plot.

Except for minor discrepancies in depths in the Morehead City Channel, where dredging and sounding operations were going on at the same time, soundings are in good agreement at crossings.

A comparison with chart 423 shows extensive changes in shoreline, shoals, deeps, and depth curves. These changes have been delineated on a chart section which is being forwarded with the smooth sheet.

CURRENT STATIONS

Current stations were not plotted on the smooth sheet as the positions locating them were forwarded to Washington Office under separate cover.

LAND MARKS

It will be noted that radio tower WBMA was plotted with only two sextant cuts, one of which was observed with a comparatively short azimuth.

CONTROL

See paragraph "F", of the hydrographic descriptive report for survey H-8564 (Gi-05-1-60), concerning the relocation of some topographic stations on T-7138 with sextant angles.

Didfield party fail to get a poutions on ranges?

Norfolk, Va. 9 Feb. 1960

Respectfully submitted,

Hugh L. Proffitt Cartographer FORM 197 (3-16-55)

Or Ho. Or Ho. Or Page of Page of Strates of Q. O. Gijde of Mag **GEOGRAPHIC NAMES** tron to the state of Or local ways Survey No. H-8565 Ε Name on Survey G Fort Macon Spackleford Banks Beautort Inlet

TIDE NOTE FOR HYDROGRAPHIC SHEET

12 May 1961

Division of Charts: R.H. Carstens

Plane of reference approved in 8 volumes of sounding records for

HYDROGRAPHIC SHEET 8565

Locality Beaufort Inlet, North Carolina

Chief of Party: K.A. Mac Donald (1960)
Plane of reference is mean low water, reading
1.9 ft. on tide staff at Atlantic Beach, N.C.
13.9 ft. below B. M.4 (1960)

Height of mean high water above plane of reference is: 3.7 ft.

Condition of records satisfactory except as noted below:

Chief, Tides and Currents Branch

But w. Wilan

THINY, VOICHEITH VOICH THE EXTRACTOR OF THE STATE OF THE

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. .8565...

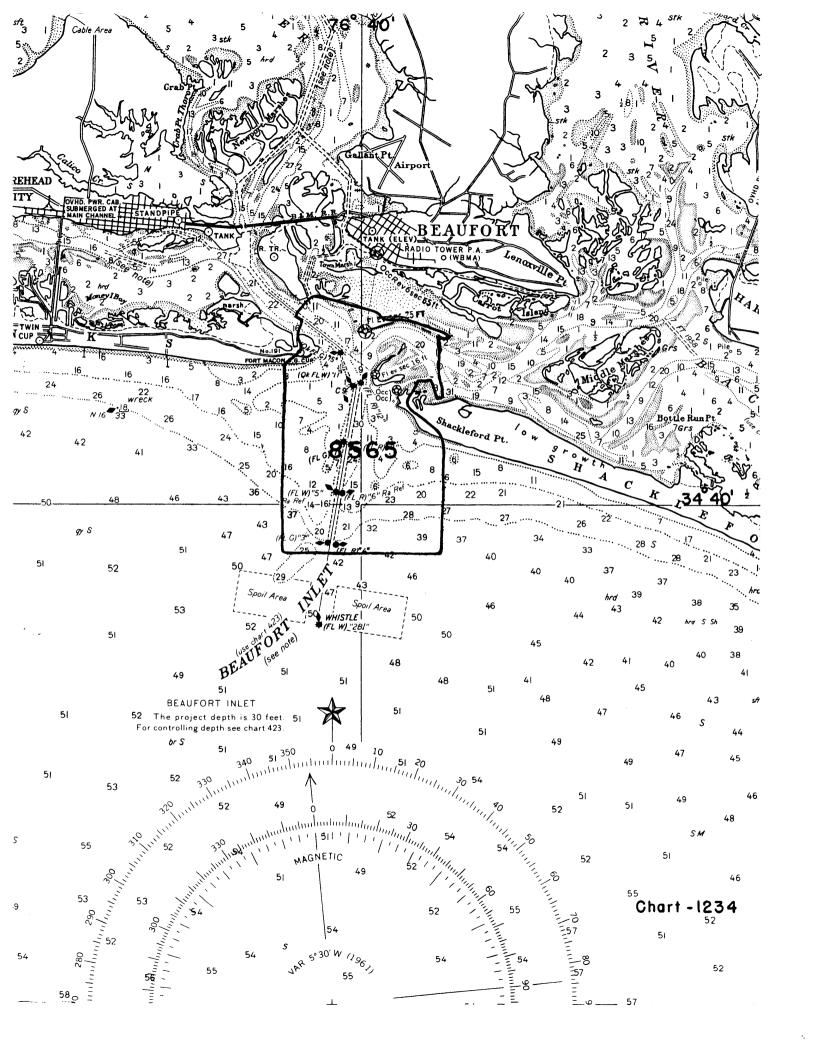
Records accompanying survey:	Smooth sheet	s;
boat sheets; sounding vols	8.; wire drag vo	ls;
Descriptive Reports .1; gr	aphic recorder envelo	pes;
special reports, etc Cahtier	- Pesition data, etc.	•••••
•••••••••		• • • • • • • •
The following statistics will be surapher's report on the sheet:	bmitted with the cart	og-
Number of positions on sheet	•••	• • •
Number of positions checked	•••	• • •
Number of positions revised	•••	•••
Number of soundings revised (refers to depth only)	• • •	•••
Number of soundings erroneousl	y spaced	•••
Number of signals erroneously or transferred		•••
Topographic details	Time	• • •
Junctions	Time	•••
Verification of soundings from graphic record	m.	• •
Special adjustments	Time	• • •
Verification by	Total time Dat	Θ . , , , . , . ,
Reviewed by	Time Dat	e,

The verifier should deal with the present hydrographic survey only, as the reviewer considers its relation to previous surveys and published charts. He should be thoroughly familiar with Chapters 3, 7 and 9 of the Hydrographic Manual.

- 1. The descriptive report was consulted and appropriate notes were made in soft pencil regarding action taken.
- 2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude.
- 3. All reference to survey sheets mentioned in the descriptive report include the registry number and year.
- 4. Geographic names of hydrographic features if on sheet are in slanting lettering and of topographic features in vertical lettering.
- 5. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken.
- 6. All positions verified instrumentally were check marked in the sounding records.
- 7. All critical soundings are clear and legible and are a little larger than the adjacent soundings.
- 8. The metal protractor has been checked within the last three months.
- 9. The protracting and plotting of all bad crossings were verified.
- 10 All detached positions locating critical soundings, rocks or buoys were verified.
- 11. The boat sheet was compared with the smooth sheet.

- The spacing of soundings as recorded in the records was closely followed.
- 13. The bottom characteristics were shown on outstanding shoals.
- 14. The reduction and plotting of doubtful soundings were checked.
- 15. The transfer of contemporary topographic information was carefully examined.
- 16. All junctions were transferred and overlapping curves made identical.
 - 17. The notation "JOINS H- (19--)" was added in ink for all contemporary adjoining or overlapping sheets now registered. Those not verified are shown in pencil.
 - 18. The depth curves have been inspected before inking.
 - 19. All triangulation stations and transfer of topographic and hydrographic signals were checked.
- 20. Heights of rocks were checked against range of tide.
- 21. Rocks transferred from topographic surveys have a dotted curve where shown thereon. Rocks located accurately by hydrographer are encircled by dotted red curve.
- 22. Unnecessary pencil notes have been removed.
- 23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet.
- 24. The low water line and delineation of shoal areas have been properly shown.
- 25. Degree and minutes values and symbols have been checked.
- 26. Questionable soundings have been checked on the fathograms

27. Source of shoreline and signals (when not given in report). 28. All notes on sheet are in accordance with figure 171 in the Hydrographic Manual. All aids located, with those on contemporary topographic 29. sheets, have been shown on survey. 30. Depth curves were satisfactory except as follows: Sounding line crossings were satisfactory except as follows: 31. Junctions with contemporary surveys were satisfactory 32. except as follows: Condition of sounding records was satisfactory except as 33. follows: 34. The protracting was satisfactory except as follows: The field plotting of soundings was satisfactory except 35. as follows: 36. Notes to reviewer:



NAUTICAL CHARTS BRANCH

SURVEY NO. <u>H-8565</u>

Record of Application to Charts

	· · · · · · · · · · · · · · · · · · ·	100014	CAREGORY I
DATE	CHART	CARTOGRAPHER	REMARKS
3/2/61	423	JHE	Before Merification and Review Vartally applied.
8-21-61	420	J. J. Kealer	Part. app'd. Before After Verification and Review thru cht. 423
9-13-61	833	H.M. Quimby	Before Asser Verification and Review thru cht 420
9-19-61	1234	H.M. Quinly	Post applied Verification and Review Lunchy, 420 1N
12-5-61	1233	D. Svendsen	Part. applied thru Ch 1234 Drg#18 Before Verification and Review
1/3162	1110	J. J. Sheiller	Examined Before After Verification and Review Drawing # 18 no corr. applied
9/10/63	833(A)	af Hoffman	Examined thru 420, no corrections, Before After Verification and Review
11/4/80	11545	MS Moore	Fully Before After Verification and Review 49434 49462
,	(1234) 11520	markstrien	Fully Before After Verification and Review
H 80-G	. 10.02		Superseded by H-9434, H-9439 & H-9462 Fully Verification and Review
		•	11-19 April 12 11-11-11-11-11-11-11-11-11-11-11-11-11-
1/9/89	11547	Boory D. adams	FULL REFORE VERIFICATION
6-5-90	(420) 11545	E. SPENCER	BADEQUATELY APPLIED BEFORE VERIFICATION AND
6-22-93	11544	C. Marks	REVIEW DWG-49 ADEQUATELY APPLIED BEFORE VERIFICATION AND
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	S Macini	REVIEW DWG # 45 Hm 115-45

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.